

processing unit, to add the path signal received from the subscriber service processing unit to the west, and to pass the path signal received from the west through the east. Independent claim 1 further recites the west-east add-drop & through path is configured to drop the path signal received from the west to the subscriber service processing unit, to add the path signal received from the subscriber service processing unit to the east, and to pass the path signal received from the east through the west.

The Office Action (on pages 5-6) states that “[t]he applicant argues that the add/drop multiplexer of Kremer is not capable of the add-drop functionality claimed.” However, the January 20, 2006 response did not expressly make this alleged statement. Applicant respectfully submits that the previous arguments (in the January 20 response) stated that Kremer does not teach or suggest the claimed features. The Office Action then states that “[i]f the prior art structure is capable of performing the intended use, then it meets the claim.” However, the Office Action has not shown that Kremer’s structure is capable of performing the claimed features. The Office Action merely states that the Examiner has concluded that the add/drop multiplexers of Kremer are capable of the add/drop/through connections in the direction claimed. However, as discussed below in detail, the Office Action has not shown that Kremer teaches or even suggests all the claimed features. Therefore, the Office Action has not shown that Kremer is capable of all the claimed features.

The present specification describes bidirectional add-drop & through paths (such as an east-west add-drop & through path and a west-east add-drop & through path). When an optical signal or path signal has a fail, the system may carry out path protection using the bidirectional

add-drop & through paths. See pages 8-9 of the present specification. FIGs. 4A and 4B of the present application show add-drop & through paths that differ from the through path or the add-drop path shown in FIGs. 3A and 3B. Thus, a plurality of signal paths may be configured as a through path, an add-drop path, a ring path, and an add-drop & through path.

Kremer may suggest to pass, to add, to drop or to bridge a signal “individually” or in a separate manner for an add-drop multiplexer (ADM). See Kremer’s col. 3, lines 21-34. However, Kremer does not teach or suggest handling a combined signal path such as an add-drop & through path that allows a same signal (such as the claimed path signal) to be added, dropped and passed at the same time. As is expressly stated in independent claim 1, the east-west add-drop & through path is configured to drop a path signal received from the east to a subscriber service processing unit, to add the path signal received from the subscriber service processing unit to the west, and to pass the path signal received from the west through the east. Kremer does not teach or suggest these features. Thus, independent claim 1 is clear that a (same) path signal is added, dropped and passed through (i.e., independent claim 1 expressly states “a path signal” and “the path signal”). Kremer does not teach or suggest at least these features of independent claim 1. At best, Kremer may suggest to pass, add or drop a signal individually. Kremer has no suggestion for the east-west add-drop & through path to drop/add/pass a path signal as claimed.

Further, independent claim 1 recites that the west-east add-drop & through path is configured to drop the path signal received from the west to the subscriber service processing unit, to add the path signal received from the subscriber service processing unit to the east, and

to pass the path signal received from the east through the west. For similar reasons as set forth above, Kremer does not teach or suggest at least these features of independent claim 1.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. See MPEP §2131 citing Verdegaal Bros. v. Union Oil of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Kremer does not expressly teach or suggest each and every element of independent claim 1. Further, Kremer does not inherently describe each and every element of independent claim 1. See Kremer's col. 3, lines 21-34 that the Office Action primarily cites. This section (and the other minor cited section) does not expressly or inherently describe each and every element of independent claim 1. Thus, Kremer does not anticipate independent claim 1.

The Office Action (item 6 on page 6) states that applicant's arguments relate to features that are not recited in the rejected claims. Applicant has made comments/arguments using language other than the specific claim language in an effort to clearly show differences between the present application and Kremer. Applicant also makes specific statements regarding the claims. For example, as discussed above, independent claim 1 recites various features regarding "a signal path" and "the signal path" (i.e., for proper antecedent basis). It would be understood by one skilled in the art that "the signal path" refers back to "a signal path." Kremer does not teach or suggest the claimed features as alleged above. Therefore, applicant respectfully disagrees with the comments on page 6, item 6 of the Office Action.

The Office Action (on page 7) also states that "[t]he add/drop multiplexer of Kremer is clearly capable of the through path functionality claimed." In making this statement, the Office

Action appears to have misread and misinterpreted Kremer's col. 3 in an effort to interpret the section so as to include features of independent claim 1. That is, as stated above, Kremer does not suggest that an east-west add-drop & through path is configured to drop a path signal received from the east to a subscriber service processing unit, to add the path signal received from the subscriber service processing unit to the west, and to pass the path signal received from the west through the east. Additionally, Kremer does not suggest that a west-east add-drop & through path is configured to drop the path signal received from the west to the subscriber service processing unit, to add the path signal received from the subscriber service processing unit to the east, and to pass the path signal received from the east through the west. Therefore, because Kremer does not suggest all the specifically claimed features, the Office Action's comments are without proper basis in the prior art.

Applicant's claimed features additionally improve upon the related art (as explained in applicant's background of the invention section) of which Kremer generally pertains. That is, Kremer's broad, general suggestions are merely an example of the related art that applicant has enhanced. Kremer does not teach or suggest how to specifically handle a path signal as is specifically recited in independent claim 1. Applicant also respectfully submits that the Patent Office should not misinterpret Kremer's teaching based on the present application. Kremer does not teach or suggest applicant's claimed east-west add-drop & through path and west-east add-drop & through path as recited in independent claim 1. Thus, independent claim 1 defines patentable subject matter.

Still further, independent claim 29 is a method claim that recites using a subscriber service processing unit to add, to drop, to pass through, as well as to add, drop, and pass through the optical signals via the optical signal transceiving unit using the at least one of the configured signal paths selected by the path signal controller. Independent claim 29 also recites that for the configured add-drop & through path, the method includes allowing the optical signal to be dropped to the subscriber service processing unit, allowing the optical signal received from the subscriber service processing unit to be added, and allowing the optical signal received from the subscriber service processing unit to be passed through.

Kremer does not teach or suggest at least these specifically recited features of independent method claim 29. More specifically, Kremer does not suggest for the configured add-drop & through path, the method includes allowing the optical signal to be dropped to the subscriber service processing unit, allowing the optical signal received from the subscriber service processing unit to be added, and allowing the optical signal received from the subscriber service processing unit to be passed through, as recited in independent claim 29. As stated above, Kremer does not specifically suggest handling a combined signal path, but rather suggests handling signals individually. Accordingly, independent claim 29 defines patentable subject matter.

For at least the reasons set forth above, each of independent claims 1 and 29 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, each

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of the dependent claims recites features that further and independently distinguish over the applied references.

### **CONCLUSION**

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-3, 8-27 and 29 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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